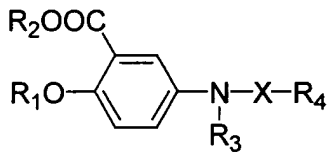
Appendix B: Clean Copy of Claims

CLAIMS

What claimed is

1. A compound represented by the following formula (I):



(I)

Wherein,

R_1 is hydrogen, alkyl or akanoyl;

R_2 is hydrogen or alkyl;

R_3 is hydrogen or an acetoxy group;

when R_3 is hydrogen, X is SO_2 or $(CH_2)n$, and R_4 is a phenyl group which is unsubstituted or substituted with one or more of the group consisting of nitro, halogen, haloalkyl, and C_1-C_5 alkoxy (wherein, n is an integer of 2 to 5, inclusive),

when R_3 is an acetoxy group, X is CO, SO_2 or $(CH_2)n$, and R_4 is a phenyl group which is unsubstituted or substituted with one or more of the group consisting of nitro, halogen, haloalkyl, and C_1-C_5 alkoxy; (wherein, n is an integer of 1 to 5, inclusive);

or a pharmceutical-acceptable salt thereof.

2. A compound according to Claim 1, wherein

R_1 is hydrogen, C_1-C_5 alkyl or C_2-C_5 alkanoyl;

R_2 is hydrogen or C_1-C_5 alkyl

R_3 is hydrogen or an acetoxy group;

when R_3 is hydrogen, X is SO_2 or $(CH_2)n$, and R_4 is a phenyl group which is unsubstituted or substituted with one or more of the group consisting of nitro, halogen, haloalkyl, and C_1-C_5 alkoxy (wherein, n is an integer of 2 to 5, inclusive),

when R_3 is an acetoxy group, X is CO, SO_2 or $(CH_2)n$, and R_4 is a phenyl group which is unsubstituted or substituted with one or more of the group consisting of nitro, halogen, haloalkyl, and C_1-C_5 alkoxy; (wherein, n is an integer of 1 to 5, inclusive);

or a pharmceutical-acceptable salt thereof.

3. A compound according to Claim 1, wherein

R_1 is hydrogen, C_1-C_3 alkyl or C_2-C_3 alkanoyl;

R_2 is hydrogen or C_1-C_3 alkyl

R_3 is hydrogen or an acetoxy group;

when R_3 is hydrogen, X is SO_2 or $(CH_2)n$, and R_4 is a phenyl group which is unsubstituted or substituted with one or more of the group consisting of nitro, halogen, haloalkyl, and C_1-C_5 alkoxy (wherein, n is an integer of 2 to 5, inclusive),

when R_3 is an acetoxy group, X is CO, SO_2 or $(CH_2)n$, and R_4 is a phenyl group which is unsubstituted or substituted with one or more of the group consisting of nitro, halogen, haloalkyl, and C_1-C_5 alkoxy; (wherein, n is an integer of 1 to 5, inclusive);

or a pharmaceutically-acceptable salt thereof.

A1 cont'd

4. A compound according to Claim 1, which is one selected from the group consisting of

5-(4-nitrobenzyl)-*N*-acetylamino-2-hydroxy ethylbenzoate,

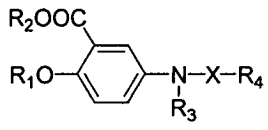
5-(4-nitrobenzyl)-*N*-acetylamino-2-acetoxy ethylbenzoate,

5-[2-(4-nitrophenyl)-ethyl]aminosalicylic acid, and

5-[3-(4-nitrophenyl)-n-propyl]aminosalicylic acid,

or a pharmaceutically-acceptable salt thereof.

5. A method for protecting central neurons from acute or chronic injuries to the central nervous system (CNS) caused by activation of NMDA glutamate receptors or by entry and accumulation of Zn2+, or by free radicals comprising administrating to a patient or a mammal suffering such CNS injuries a therapeutically appropriate amount of a neuroprotective compound represented by the following formula (I):



(I)

A1 concl'd

Wherein,

X is CO, SO_2 or $(CH_2)n$ (where n is an integer of 1 to 5, inclusive)

R_1 is hydrogen, alkyl or akanoyl;

R_2 is hydrogen or alkyl;

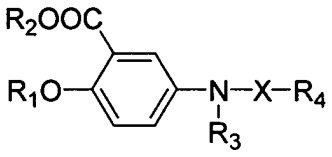
R_3 is hydrogen or an acetoxy group; and

R_4 is a phenyl group which is unsubstituted or substituted with one or more of the group consisting of nitro, halogen, haloalkyl, and C_1-C_5 alkoxy; or a pharmceutical-acceptable salt thereof.

8. A method according to Claim 5, wherein said compound attenuates NMDA neurotoxicity, Zn2+ neurotoxicity, and blocks free radical neurotoxicity as a direct antioxidant.

A2

9. A composition for treating or preventing neurological diseases caused by activation of NMDA glutamate receptors, Zn^{2+} or oxidative stress, comprising administrating to a patient or a mammal suffering from said neurological diseases a therapeutically effective amount of the compound represented by the following formula (I):



(I)

Wherein,

X is CO, SO_2 or $(CH_2)n$ (where n is an integer of 1 to 5, inclusive)

R_1 is hydrogen, alkyl or akanoyl;

R_2 is hydrogen or alkyl;

R_3 is hydrogen or an acetoxy group

R_4 is a phenyl group which is unsubstituted or substituted with one or more of the group consisting of nitro, halogen, haloalkyl, and C_1-C_5 alkoxy; or a pharmceutical-acceptable salt thereof.

A2 concl'd